

**Abstract**

A control system for the transmitting power of a multiband antenna of especially a mobile station. The antenna (300) has at least two radiating elements (B31, B32) corresponding to different operating bands. A separate part is arranged for each element in the antenna switch of a radio device using TDD technology. When one radiating element (B31) is connected to a transmitter (TX1), the other radiating element (B32) is connected to a control circuit (DET, PCU) for a radio-frequency power amplifier (PA1) of the transmitter. By an electromagnetic coupling (CP) between the radiating elements is then produced to the control circuit a signal (M1) indicating the transmitting power, and the transmitting power can be kept as desired by controlling the power amplifier. The electromagnetic coupling between the elements is arranged suitable in view of the power control. The arrangement achieves space savings on the circuit board of the radio device as the relatively large directional couplers can be left out, and the attenuation in the transmission paths from the power amplifiers to the antenna will be lower.

Fig. 4